IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION

STMICROELECTRONICS, INC.,

      Plaintiff,

vs.

MOTOROLA, INC.,

      Defendant.

CIVIL ACTION NO. 4:03–CV–276

STMICROELECTRONICS INC.'S REPLY BRIEF ON CLAIM CONSTRUCTION FOR
U.S. PATENT NOS. 5,812,789; 5,031,092; AND 5,359,244 UNDER PATENT RULE 4–5(c)

April 16, 2004

Michael E. Jones
POTTER MINTON
A Professional Corporation
110 North College, Suite 500
Tyler, Texas 75702

Clyde Siebman
SIEBMAN, REYNOLDS & BURG
421 North Crockett
Sherman, Texas 75090

Bruce S. Sostek
Jane Politz Brandt
THOMPSON & KNIGHT LLP
1700 Pacific Avenue, Suite 3300
Dallas, Texas 75201

ATTORNEYS FOR PLAINTIFF STMICROELECTRONICS, INC.

TABLE OF CONTENTS

A.   U.S. PATENT NO. 5,812,789 ("THE DIAZ PATENT")

1.   *"real time operation"*

In its proposed construction of the term "real time operation," Motorola improperly requests the Court to read limitations into the claims from the specification. In doing so, Motorola distorts, not only the words of the patent, but also the statements in ST INC's opening brief on claim construction to arrive at its proposed construction. When the intrinsic evidence is examined, it becomes plain that nearly all of Motorola's citations are contradicted by the record and that ST INC's proposed construction — "processing fast enough to keep up with an input data stream" — is the proper construction

Motorola's analysis is flawed from the outset, where Motorola misrepresents ST INC's position by stating: "ST admits . . . that the term 'real time operation' was defined in the specification by the patentee . . . ." What ST INC stated was that the specification defines the term *"in the context of video decoding."* But claim 1 of the patent is not limited to video decoding.

The statements in both ST INC's Opening Brief and the specification of the patent quoted by Motorola do nothing more than describe decoder operation in decoding a bitstream in embodiments disclosed. Motorola misinterprets these statements and then improperly argues that limitations from the specification should be imported into the term "real time operation."[1]

ST INC agrees with Motorola's characterization of "real time" in the context of video and audio files to the extent that it recognizes that "a recorded event is displayed in 'real-time' if it is displayed in the same amount of time as was required to record the event."[2] Indeed, as discussed in ST INC's Opening Brief, if a decoder "fails to keep up with the data stream," it will not be able to display the recorded event in real time, *i.e.*, "the decoded movie would stop periodically between images until the decoder can get access to the memory to process the next image."[3]

---

[1] *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342, 1347 (Fed. Cir. 1998) ("[A] court may not import limitations from the written description into the claims.").

[2] Motorola's Responsive Brief on Claim Construction ("Motorola's Responsive Brief"), at 42.

[3] ST INC's Opening Brief, at 3–4.

But Motorola's construction goes beyond any definition of "real time" provided by the Diaz patent or even Motorola's cited dictionary definition. Motorola seeks to add a limitation that is neither required by the Diaz patent, nor included in the claims — the ability of a human viewer or listener to detect loss of information.

The context in which a decoder/encoder operates determines the speed of an input stream necessary for "real-time operation." For example, with video, this speed is determined by the frame rate of the video content.[4] With audio, this speed is determined by the sampling rate of the audio content.[5] The references in the specification to frame rates simply describe the parameters of real time operation in the context of a particular embodiment of the invention. Contrary to Motorola's assertions, the term "real-time operation" is not defined in the specification, it is only described in the specification in the context of a specific embodiment.

In addition, Motorola's proposed definition is contradicted by the specification. As noted in the declaration of Dr. Omid E. Kia[6], the Diaz patent discusses a variety of coding standards used to compress video and audio sequences, including MPEG–1, MPEG–2, H.261, and H.263.[7]

Regardless of whether a sequence is encoded using a standard that is capable of providing high-quality images (MPEG–2) or lower-quality images (H.261), referring to Motorola's analogy about a sprinter running the 100-yard dash, the sprinter's 10-second 100-yard dash will be displayed in 10 seconds if the decoder can process fast enough to keep up with the input data stream. That is all that "real time operation" requires. It simply does not matter whether the human viewer may perceive a loss of data. Indeed, under some of the standards discussed in the Diaz patent (i.e., the embodiments using the H.261 and H.263 standards), visual information is limited to accommodate a slower medium (e.g., video telephony or a dial-up modem).

---

[4] Reply Appendix 10 — Diaz patent, col. 7, line 63 to col. 8, line 5.

[5] Reply Appendix 9 — Diaz patent, col. 6, line 61 to col. 7, line 1. *See also* Reply Appendix 16 — Greg Maturi, "Single Chip MPEG Audio Decoder," *IEEE Transactions on Consumer Elecs.*, Vol. 22, No. 1, at 350 (Aug. 1992). The Maturi reference was cited in the Diaz patent and is thus intrinsic evidence.

[6] Reply Appendix 25 — Declaration of Dr. Omid E. Kia, at 3.

[7] *See also* Reply Appendix 10 — Diaz patent, col. 7, line 36 to col. 8, line 29.

Thus, Motorola's proposed definition is not only ambiguous, but it also fails to include embodiments described in the specification. These standards, even when operating in real time, may result in loss of information, which may be detectable by a human viewer or listener.[8]

Perhaps Motorola's most egregious mischaracterization is that of the prosecution history of the Diaz patent. Specifically, Motorola asserts that ST INC is attempting to recapture subject matter disclaimed during prosecution. Motorola's assertion is baseless. In addressing the Lin *et al.* reference,[9] the prosecuting attorney wrote:

> Lin et al. discusses a scheme for assigning duration rates to input/output tasks to ensure the decoding duration rate is greater than the display input requirements. Lin et al. does not suggest using a single shared bus having a bandwidth of sufficient size to permit real time decoding when sharing the bus with one or more other devices.[10]

The Lin *et al.* reference shows a decoder and its associated memory.[11] The decoder is shown surrounded by a dashed line in Figure 1 of the reference and the memory is to the top right of Figure 1.[12] Lin *et al.* was distinguished because it does not show a bus that is shared by a decoder and another device. There is only a decoder and its memory. As is clear from the above quote, Lin *et al.* was distinguished on that basis, and not, as Motorola contends, that the decoder of Lin et al did not operate in real time. Rather, the argument in the prosecution history is that Lin does not suggest using a single shared bus having a bandwidth of sufficient size.[13]

Although Motorola cites to the Federal Circuit's opinion in *Texas Digital*, it asks the Court to read limitations from the specification into the construction of "real time operation." But *Texas Digital* expressly warns that reliance on the intrinsic record over the plain meaning of

---

[8] Reply Appendix 10 — Diaz patent, col. 7, line 63 to col. 8, line 8.

[9] Reply Appendix 34 — Lin *et al.* "On the Bus Arbitration for MPEG 2 Video Decoder," VLSI Technology, Systems and Applications 1995 Symposium, Digest of Technical Papers, at 201–03.

[10] Reply Appendix 42 — Amendment filed Mar. 3, 1998, at 4.

[11] Reply Appendix 37 — Lin *et al.*, "On the Bus Arbitration for MPEG 2 Video Decoder," at 201, col. 2.

[12] *Id.* at 204.

[13] Moreover, for a surrender of subject matter during prosecution to occur, that surrender must be clear and unambiguous. *See, e.g., Northern Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1294 (Fed. Cir. 2000) (finding not disclaimer of particular subject matter because alleged limiting statements were not made "with reasonable clarity and deliberateness"); *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1438–39 (Fed. Cir. 2000).

---

the claim term is often an invitation to improperly import limitations from the specification into the claim: "Consulting the written description and prosecution history as a threshold step in the claim construction process, before any effort is made to discern the ordinary and customary meanings attributed to the words themselves, invites a violation of our precedent counseling against importing limitations into the claims."[14]

To garner support for its proposed construction, Motorola cites to the *IEEE Standard Dictionary of Electrical and Electronics Terms*, which ST INC also cited, but Motorola accuses ST INC of using an incorrect definition from that dictionary. Without analysis, Motorola suggests that the 3rd and 7th definitions of "real time" in the IEEE dictionary[15] are inconsistent.[16] Motorola deems the 7th definition as most appropriate and dismisses the 3rd definition as pertaining to control systems. Motorola's argument is flawed for several reasons.

Specifically, the definitions cited by ST INC and Motorola are necessarily consistent because they are drawn from the same IEEE Standard (C 610.10–1994), as noted directly beneath each definition.[17]   Moreover, even the definition deemed "most applicable" by Motorola — "The actual time in the real world during which an event takes place" — says absolutely nothing about the perception of a viewer. In any event, the claims themselves make clear that the perception of the viewer is irrelevant to the claim scope. The decoder itself does not view or listen to anything. There is no human viewer or listener referred to anywhere in the claim, and in fact, there is not even an output device or display included in the claim. The decoder that is to maintain "real time operation" receives a data stream ("bitstream") that it must process as it receives it. Motorola's proposed definition improperly ignores data input streams.

ST INC's definition, in contrast, is based on the terms and context of the claim in light of

---

[14] *Texas Digital v. Telegenix, Inc.*, 308 F.3d 1193, 1204 (Fed. Cir. 2002) ("For example, if an invention is disclosed in the written description in only one exemplary form or in only one embodiment, the risk of starting with the intrinsic record is that the single form or embodiment so disclosed will be read to require that the claim terms be limited to that single form or embodiment."). (citations omitted).

[15] Reply Appendix 50 — *IEEE Standard Dictionary of Elec. & Elecs. Terms*, at 879 (6th ed. 1996).

[16] Motorola's Responsive Brief, at 43 n.150.

[17] Reply Appendix 50 — *IEEE Standard Dictionary of Elec & Elecs. Terms*, at 879 (6th ed. 1996).

the specification. If the decoder is able to decode the bitstream ("input data stream") at a fast enough rate (*i.e.*, processing fast enough to keep up with the input data stream), then the information can be displayed in real time. In an embodiment where MPEG–2 is used, the decoded image can be played back at a rate of 30 frames per second if the decoder can decode the image in 1/30 of a second. In other embodiments where playback is performed at a lower rate, the decoder simply needs to keep up with the input data stream to operate in real time.

In an effort to create ambiguity, Motorola asserts that "input data stream" is ambiguous. "Input data stream" is simply the plain language equivalent of "bitstream," which is used eighteen times in the patent specification. For example, the specification states:

> In the preferred embodiment, the decoder/encoder 45 is capable of decoding a bitstream formatted to comply to the MPEG–1, MPEG–2, H.261, and H.263 standards, and encoding a sequence to produce a bitstream to comply to the H.261, and H.263 standards. This allows the decoder/encoder 45 to be used for video telephony.[18]

In addition, the use of "bitstream" in the dependent claims makes clear the meaning of input data stream. For example, claim 4 states that the decoder is capable of decoding a bitstream in MPEG–2 format. Accordingly, the input data stream is the bitstream that the decoder decodes or the encoder encodes.

2.   *"selectively providing access"*

Motorola's proposed construction of "selectively providing access," which would require a particular type of priority scheme for allowing access to the memory, not only imports extraneous limitations from the specification but also attempts to import extraneous limitations from other unrelated portions of the claim. The claim language itself makes clear that "selectively providing access" is a function that is performed by the arbiter — "the memory interface having an arbiter for selectively providing access for the first device and the decoder to the memory."[19] Thus, a proper definition should relate to the operation of the arbiter in "selectively providing access."

---

[18] Reply Appendix 10 — Diaz patent, col. 8, lines 19–24.
[19] Reply Appendix 12 — Diaz patent, col. 12, lines 34–37.

Instead of providing a construction for the phrase "selectively providing access," however, Motorola attempts to redefine the entire claim in its construction of this simple phrase. Motorola admits that its proposed definition "addresses what the priority scheme must accomplish." But it never cites a term to support this wholesale importation from the specification into the claim.[20] Motorola's elaborate interpretation also includes "operates in real time." Indeed, while the term "real time" is recited in other portions of claim 1, it does not grammatically modify "arbiter" and thus cannot be interpreted as a limitation to "arbiter."

In addition, Motorola attempts to read other unrelated limitations into the claim in violation of the Federal Circuit's proscription from doing so.[21] "Denying other components" is not in the claim. There is only one other component connected to the bus in claim 1. Thus, Motorola's reference to "other components" in its proposed construction is facially improper.

Further, Motorola's position that the priority scheme "allows memory to be shared between the decoder and the first device so that no one device, including the decoder, can monopolize access to memory" goes beyond the requirements of the claim. Indeed, claim 1 only requires that the decoder have "access to the memory sufficient to maintain real time operation" and that the bus has "a sufficient bandwidth to enable the decoder to access the memory and operate in real time when the first device simultaneously accesses the bus." Thus, the focus of the claim is that the decoder have sufficient access such that it can operate in real time. Whether the operation of the first device is "interfered" with is not discussed in claim 1.

In addition, Motorola's proposed definition is contrary to the embodiments described in the specification. A priority scheme is needed to arbitrate when the decoder and the first device

---

[20] See Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998) (rejecting defendant's attempt to limit claim terms to its functional purpose as disclosed in the preferred embodiment).

[21] Liebel–Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 913 (Fed. Cir. 2004) ("[I]t is improper to read limitations from a preferred embodiment described in the specification — even if it is the only embodiment — into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited."); Inverness Med. Switzerland GmbH v. Warner Lambert Co., 309 F.3d 1373, 1379 (Fed. Cir. 2002) ("It is improper to limit the claim based on a preferred embodiment of the invention."); Laitram Corp. v. NEC Corp, 163 F.3d 1342, 1347 (Fed. Cir. 1998) ("[A] court may not import limitations from the written description into the claims.").

interfere.[22] If there is no interference, there is no need to arbitrate. Thus, Motorola's proposed

definition does not make sense.

Motorola argues that ST INC's definition fails to specify what the priority scheme must

accomplish. This is irrelevant in the context of defining the term "selectively providing access."

Claim 1 itself clearly states what must be accomplished — "providing the decoder with access to

the memory sufficient to maintain real time operation." Also, Motorola's discussion of the phrase

"selectively providing access" primarily revolves around a discussion of the priority scheme. This

is again an attempt to import limitations into the claim, contrary to Federal Circuit law.[23]

Further, Motorola's assertion that ST INC's claim construction would result in the

decoder not sharing memory is unfounded. ST INC's proposed construction does not address a

particular priority scheme because there is no need to do so. The claim is clear that the priority

scheme must be one that enables the decoder "to access the memory and operate in real time

when the first device simultaneously accesses the bus."

3. *"sufficient bandwidth"*

The term "sufficient bandwidth" refers to a bandwidth or data-transfer capability at a rate

that allows real time operation. Motorola's proposed definition takes this term and impermissibly

imports multiple extraneous limitations into the claims. Just as it did for "selectively providing

access," Motorola seeks to read the limitation "the decoder operates (to operate) in real time,

without denying the other components on the bus access to the memory for an amount of time

that would interfere with their operation" into the definition of "sufficient bandwidth."

Motorola argues that sufficiency of bandwidth must be measured in terms of the decoder

and the other devices accessing the memory. As discussed above, the claim only requires that a

decoder and a first device have access to the memory. Thus, Motorola's reference to "the other

devices" is without support in the claim.

---

[22] Reply Appendix 11 — Diaz patent, col. 9, line 42 to col. 10, line 27.
[23] *See Liebel–Flarsheim*, 358 F.3d at 913; *Inverness*, 309 F.3d at 1379; *Laitram*, 163 F.3d at 1347.

Once again, Motorola attempts to introduce the limitation that the decoder does not "interfere" with "other components" on the bus. As noted above, there is only one other component on the bus in the claim. Thus, reference to these unidentified "other components" is not appropriate. Also, the described embodiments in the specification specifically contemplate that the decoder and first device will interfere. When such interference occurs, a priority scheme is used to arbitrate access.[24] If there is no interference, there would be no need to arbitrate. Thus, Motorola's proposed definition makes no sense in the context of these claims.

B.   U.S. PATENT NO. 5,031,092 ("THE EDWARDS PATENT")

1.   *The Court is not bound by the Special Master's Report in* Broadcom.

Motorola contends that this Court is obligated to adopt the special master's Report and Recommendation ("the Report") in a separate lawsuit, *STMicroelectronics, Inc. v. Broadcom Corp.*,[25] arguing that the Court is bound by principles of collateral estoppel, judicial estoppel, and *stare decisis* in applying the findings with respect to the Edwards patent to this case. What Motorola fails to make clear, however, is that both ST INC and its opponent objected to the Report. The *Broadcom* court did not rule on these objections or adopt the Report.

In *Markman v. Westview Instruments, Inc.*, the Supreme Court made clear that claim construction is a matter of law.[26] On legal matters, the district court must decide *de novo* all objections to the recommendations of a special master.[27] It may "adopt or affirm; modify; wholly or partly reject or reverse; or resubmit to the master with instructions."[28] But because the *Broadcom* court did not rule, there is no judicial ruling on which to base any type of preclusion.

---

[24] Reply Appendix 11 — Diaz patent, col. 9, line 42 to col. 10, line 27.

[25] Civil Action No. 4:02–CV–362 (E.D. Tex.) (Schell, J.).

[26] 517 U.S. 370, 387 (1996).

[27] Fed. R. Civ. P. 53(g)(4). This standard was formally integrated into Rule 53 effective December 1, 2003. The new rule is applicable both to cases filed after December 1, 2003 and cases then pending, "insofar as just and practicable." March 27, 2003 Order of U.S. Supreme Court, at http://www.supremecourtus.gov/orders/courtorders/frcv03p.pdf. Given that the Broadcom special master did not issue his Report until January 2004, nothing would preclude application of the revised rule to the pending litigation. In any event, the same *de novo* standard applied to a special master's legal conclusions under the prior rule. *See, e.g., Fulhorst v. Toyota Motor Co.* No. 2:00–CV–71, 2002 U.S. Dist. LEXIS 26470, at *8 (E.D. Tex. Mar. 27, 2002).

[28] Fed. R. Civ. P. 53(g)(1).

In a case Motorola tries to distinguish, the Federal Circuit expressly held that collateral estoppel *did not apply* to claim construction from a prior suit — even where the claim constructions were included in orders on motions for partial summary judgment in the prior case. Recognizing that the law of the regional circuits applied to the issue of the preclusive effect, if any, of the prior ruling, the Federal Circuit in *RF Delaware, Inc. v. Pacific Keystone Technologies, Inc.*, quoted Fifth Circuit authority making clear that collateral estoppel would not apply:

> Judicial finality—the predicate for *res judicata*—arises only from a final decision rendered after the parties have been given a reasonnable opportunity to litigate a claim before a court of competent jurisdiction. Thus, if the parties to a suit enter into **an extrajudicial settlement or compromise, there is no judgment,** and future litigation is not barred by *res judicata* or collateral estoppel . . . .[29]

Despite this unambiguous, binding Fifth Circuit authority, Motorola cites to district court cases from other jurisdictions.[30] But in those cases, unlike here, the district courts — and not special masters — actually ruled on claim construction. Thus, the unadopted special master's Report in *Broadcom* should not be given preclusive effect here.

Likewise, Motorola's assertion that judicial estoppel applies is incorrect, as judicial estoppel "prevents a party from asserting a position in a legal proceeding that is contrary to a position previously taken in the same or some earlier proceeding."[31] Two elements must be met before a party can be estopped under this doctrine.[32] First, the party's current position must be clearly inconsistent with its previous position; and second, the party must have convinced a court to accept that previous position.[33] Motorola cannot satisfy either element. The first prong is not met because ST INC's proposed definitions here are not clearly inconsistent with the constructions proposed in *Broadcom*. Nor is the second prong met, which requires the prior court

---

[29] 326 F.3d 1255, 1261 (Fed. Cir. 2003) (quoting *Kaspar Wire Works, Inc. v. Leco Eng'g & Mach., Inc.*, 575 F.2d 530, 542 (5th Cir. 1978)) (emphasis in original).

[30] Motorola's Responsive Brief, at 3 n.5.

[31] *Hall v. GE Plastic Pac. PTE Ltd.*, 327 F.3d 391, 396 (5th Cir. 2003) (citations omitted).

[32] Fifth Circuit law controls these issues because judicial estoppel, collateral estoppel, and *stare decisis* are all procedural matters. *Water Techs. Corp. v. Calco, Ltd.*, 850 F.2d 660, 665 n.3 (Fed. Cir. 1988) (holding that judicial estoppel is a procedural matter, reviewed under the law of the regional circuit in which the trial court sits); *Ute Indian Tribe v. Utah*, 114 F.3d 1513, 1527 (10th Cir. 1997) (collateral estoppel and *stare decisis* are procedural rules).

[33] *Hall*, 327 F.2d at 396.

to have accepted the party's position. Absent both inconsistency and acceptance in *Broadcom*, no basis exists to apply judicial estoppel to ST INC's proposed claim constructions in this case.[34]

Finally, *stare decisis*, like collateral estoppel, only applies to issues necessarily decided by a court in reaching its result. Indeed, "[w]hen a reviewing court *issues a final ruling* on a matter of law before it, such determination is binding and conclusive in all subsequent suits involving the same subject matter."[35] Clearly, absent a final ruling, *stare decisis* does not apply.

2.   *Motorola improperly asks this Court to ignore the intrinsic evidence.*

A fundamental tenet of claim construction is that claims are to be interpreted *first* by examining *intrinsic* evidence, that is, the specific language or terms of the claims, other claims of the patent, the specification of the patent, the cited prior art and the prosecution history.[36] In this process, a claim term must be given its ordinary and accustomed meaning unless the public record indicates that the inventor intended otherwise.[37] "Relying on extrinsic evidence to construe a claim is proper only when the claim language remains genuinely ambiguous after consideration of the intrinsic evidence."[38]

Notwithstanding the Federal Circuit's admonishment that opinion testimony on claim construction is rarely, if ever, appropriate,[39] apart from the unadopted recommendations of the *Broadcom* special master, Motorola supports its position almost exclusively with expert testimony, ignoring the intrinsic evidence. In the Edwards patent, the intrinsic record is entirely sufficient to enable the court to construe the disputed claim terms.

As discussed above, because claim construction is an issue of law, any recommendations made by a special master that are objected to must be reviewed and ruled upon *de novo* by the

---

[34] Motorola cites no cases where a court held that judicial estoppel applied without a final ruling.

[35] *Peregoy v. Amoco Prod. Co.*, 742 F. Supp. 372, 374 (E.D. Tex. 1990) (emphasis added) (citing *Sturgeon v. Strachan Shipping Co.*, 698 F.2d 798, 800 (5th Cir. 1983)).

[36] *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003).

[37] *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1348 (Fed. Cir. 2002); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

[38] *Interactive Gift Express, Inc. v. Compuserve Inc.*, 231 F.3d 859, 866 (Fed. Cir. 2000) (emphasis added).

[39] *Vitronics*, 90 F.3d at 1585.

district court.   While Motorola acknowledges that ST INC objected to the special master's Report (Broadcom filed objections as well), Motorola, without citation of any authority, states that this Court has "discretion to adopt the[] constructions" from the Report.   In essence, therefore, Motorola is attempting to obtain from this Court — a summary adoption of the Report without review of the evidence — something that not even Judge Schell could grant in the very case in which the Report was issued.

3.   Construction of disputed terms in the Edwards patent

a.   "high density memory array"

The essence of Motorola's claim construction argument for this term is that an example in the specification regarding the particular structure of the memory cell should be imported into the claims, despite the lack of any claim language for calling for any particular memory structure.

The Edwards specification describes as an "example" a memory that uses so-called resistive-load memory cells.[40]   While Motorola initially acknowledges this memory cell is called an "example" in the specification, it then proceeds to deceptively recharacterize the example as an "explicit disclaimer" of other memory cell structures.[41]   Motorola then repeats the disclaimer language hoping that by sheer repetition of the words, an "example" can be converted into an "explicit disclaimer," despite the specification's language that contradicts this position.[42]

There is no disclaimer in the Edwards patent or prosecution history with respect to the memory-cell architecture.   In fact, just the opposite is true.   The Edwards patent describes one possible memory cell (using "high impedance resistive loads") as an "example" and discloses that other alternatives (using "depletion transistor loads or complementary pull-up transistors) exist.[43] Motorola is unable to identify anything in the specification or the prosecution history that states that the other disclosed alternatives are incapable of achieving the claimed high-density feature.

---

[40] Id. at 8.

[41] Motorola's Responsive Brief, at 12.

[42] Id. at 12–14.

[43] Reply Appendix 87 — Edwards patent, col. 42, lines 49–53.

The Federal Circuit has frequently warned against the improper importation of examples and embodiments in the specification into the claims.[44]

Motorola relies on the opinion testimony of its expert, David Taylor, as a justification for importing the four-transistor resistive-load memory cell architecture into the claim as a limitation.[45] Significantly, Mr. Taylor's report focuses exclusively on the density of the individual memory *cell* but does not reconcile his analysis with the fact that the actual claim term to be construed is "high density memory *array*" — not high density memory cell.[46] A memory "array" is made up of numerous individual memory cells, and the density of the array is affected by the overall array configuration, not just the cell configuration.[47] Thus, Motorola is wrong to say that the patents cited by ST INC that address memory cell packing density, use the term "high density" in different contexts than the Edwards patent.[48] In actuality, it is precisely the packing density of the many individual memory cells to thereby form a high-density "array" which is the context of "high density" in the Edwards patent. The patent references cited by ST INC in its opening brief are directly on point because they use the terminology in the same way.[49]

Accordingly, Motorola's position that a six-transistor complementary memory cell array could not be understood to be a "high density memory array" is flatly refuted by the patents cited by ST INC that use the term "high density" while referring to memory-cell arrays formed of six-transistor complementary memory cells.[50] Moreover, because these patents are objective

---

[44] *See, e.g., Liebel–Flarsheim*, 358 F.3d at 913; *Inverness*, 309 F.3d at 1379; *Laitram*, 163 F.3d at 1347.

[45] Motorola's Responsive Brief, at 12, nn.43, 45–46, citing to the declaration of David L. Taylor, MOT. App., at 89–111.

[46] Taylor Decl. ¶¶ 24–30, Motorola's Responsive Brief on Claim Construction at App., at 96–99.

[47] Reply Appendix 93 — Declaration of John Choma ("Choma Decl.") ¶ 3.

[48] Motorola's Responsive Brief, at 13.

[49] ST's Opening Brief on Claim Construction Appendix B66 — U.S. Patent No. 4,419,745, col. 3, line 66 to col. 4, line 9; Appendix B72 — U.S. Patent No. 4,791,606, col. 1, lines 65–67 and col. 2, lines 2–4 and col. 4, lines 23–31 [B73]; Appendix B77, B76 — U.S. Patent No. 4,380,055, col. 1, lines 13–18, FIGS. 1, 2; Appendix B87 — U.S. Patent No. 4,535,425, col. 5, lines 50–54.

[50] *Id.* The flaws in Motorola's argument are clearly demonstrated where Motorola contends that one extrinsic patent cited by ST INC, which discloses a high density memory array of six transistor complementary memory cells, cannot be "high density" because, Motorola posits, the Edwards patent has "expressly excluded" six transistor complementary memory cells from the definition of "high density." Motorola's Responsive Brief, at 13 n.49. This circular logic has no merit because it begins with a false premise.

resources that reflect how the term "high density" was used by persons of skill in the art, the Court should prefer them to the disfavored opinion evidence submitted by Motorola's expert.

In the present situation — where the intrinsic evidence is clear and unambiguous that no particular memory-cell architecture is required — it is unnecessary, and indeed improper, to rely on extrinsic opinion evidence.[51]   Nevertheless, should the Court wish to consider expert testimony about the relevant technology in the context of the claim terms in dispute, ST INC submits herewith the declaration of Dr. John Choma, who explains, consistent with the intrinsic evidence, that one of ordinary skill in the art at the time of the invention would not have understood "high density memory array" to mean any specific memory cell type.[52] In particular, this term would not have been understood to require the memory array to incorporate a four-transistor resistive load memory cell.[53] Instead, the term "high density memory array" would be understood to simply mean that the overall memory array was configured in a dense format,[54] and accordingly, this term should be construed as "a memory array having a large number of memory cells for a given area."

b.   "noise isolated"

The parties now agree that this term should be construed to mean "isolated from noise produced in another region."

c.   "isolation region in said substrate"

ST INC suggested that this term be defined as "an area in the substrate isolated from noise generated in another area."   This definition differs from the definition recommended by the *Broadcom* special master only in the substitution of the word "area" for "region." Motorola's proposed definition adopts the one proffered by the special master in *Broadcom.*

ST INC does not believe that there is any substantive difference between the definitions

---

[51] *Interactive Gift Express, Inc. v. Compuserve, Inc.,* 231 F.3d 859, 866 (Fed. Cir. 2000).

[52] Reply Appendix 93 — Choma Decl. ¶ 3.

[53] *Id.*

[54] *Id.*

urged by the parties. In the present case, ST INC has substituted the word "area" for "region" to avoid defining the phrase with a word that appears in the phrase itself. Thus, it appears that the parties are now essentially in agreement that this term should be construed to mean, "an area (*i.e.*, region) in the substrate isolated from noise generated in another area (*i.e.*, region)."

      d.   *"circuitry operable independently of the operation of said memory array"*

ST INC opposes the importation of the term "asynchronous" into the definition of this claim term because it unnecessarily limits the term to an aspect of the preferred embodiment and incorporates another term, asynchronous, which itself, would require construction. Although ST INC proposed a construction in *Broadcom* that included the term "asynchronous," since that time ST INC has come to appreciate that the meaning of the term "asynchronous" itself cannot be agreed to by the parties and thus would require further construction. Accordingly, ST INC now offers a construction that avoids the follow-on ambiguity and improper importation that the term "asynchronous" would cause.

      e.   *"noise due to independent operation of said transistors"*

In *Broadcom*, ST INC agreed to a construction of "noise due to independent operation of said transistors" that also included the word "asynchronous." For the reasons discussed above, the Court should not have to construe the term "asynchronous," which is not a claim term but merely an aspect of the preferred embodiment of the invention. In an effort to provide a more correct definition, ST INC now offers a construction that would avoid ambiguity and improper importation of the term "asynchronous" from the specification.

      f.   *"writable memory"*

Motorola's disagreement with ST INC's proposed construction for "writable memory" as "a read–write memory" is especially curious considering that Motorola's own expert unequivocally described the writable memory of the Edwards patent as a "read–write memory" when he submitted his expert report for claim construction in the *Broadcom* case.[55] ST INC offered the

---

[55] Reply Appendix 96 — *Broadcom* Litig. Report of David L. Taylor on Claim Construction Issues ¶ 18.

definition "read-write memory," believing that it could not be objectionable to Motorola.

Mr. Taylor, Motorola's expert, has retreated from his previous definition and now says that a read–write memory is a narrow species of a writable memory. He refers to "certain disctionaries" (without identifying them) as his rationale for his new understanding.[56] Evidently, the reason for Mr. Taylor's change in position is to persuade the Court that an EEPROM is a type of writable memory. But an EEPROM by its own terms is merely a special type of ROM, which Mr. Taylor concedes is in a different category of memory than writable memory.[57]

Unlike Motorola, ST INC does not base its proposed definition on extrinsic evidence but on the distinction between RAM and ROM given in the Edwards patent[58] and on the indisputable fact that a writable memory, in addition to being capable of being written to, must also be capable of being read from.

g.   "substrate of semiconductor material of a first type"

The difference between the parties on this claim term comes down to Motorola's suggestion that the substrate must be either n-type or p-type, "but not both." Claim 23 of the Edwards patent recites: "a microcomputer comprising" and "having a substrate of semiconductor material of a first type." Since "comprising" and "having" are used as open-ended terms,[59] the language that follows cannot be construed to exclude other elements.[60] Motorola's suggestion of "but not both" effectively converts the claim to a close-ended construction, as though the claim language read "*only* a first type." Such a construction is clearly contradicted by fundamental claim construction principles. Accordingly, the Court should reject the limiting language suggested by Motorola and construe this term to mean, "the starting wafer of semiconductor

---

[56] It is telling that Motorola feels at liberty to retreat from the definition its own expert advocated during the *Broadcom* litigation, but claims it is improper for ST INC to modify its proposed constructions from those advocated in *Broadcom*.

[57] Declaration of David L. Taylor ¶ 17, in Appendix to Motorola's Responsive Brief, MOT App. 93.

[58] Reply Appendix 68, 69 — Edwards patent, col. 4, lines 56–64; col. 6, lines 19–28.

[59] *See Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997); *see also Crystal Semiconductor Corp. v. Tritech Microelectronics, Int'l, Inc.*, 246 F.3d 1336, 1348 (Fed. Cir. 2001).

[60] *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1573 (Fed. Cir. 1997).

material of either p–type or n–type on which a microcircuit is fabricated, including any epitaxial layer grown thereon."

h.   "noise"

ST INC recommends that "noise" be construed as "unwanted electrical signals"; Motorola goes beyond this and suggests that noise is not noise unless it also "produce[s] undesirable effects." Motorola's definition introduces an ambiguity of what "effect" is subjectively "undesirable." For example, under Motorola's suggested definition, it is unclear whether unwanted electrical signals that are detectable but at an insufficient level to cause data corruption would be "undesirable," and thus it is unclear whether such a signal would qualify as "noise." Accordingly, because Motorola's proposed construction introduces ambiguity rather than clarity into the meaning of this claim term, the Court should reject Motorola's definition and, instead, simply construe "noise" to mean "unwanted electrical signals."

i.   "first and second regions noise isolated from each other"

ST INC agrees that the phrase "from each other" requires bi-directional isolation. This term, however, does not require that each region have its own separate isolation structure (i.e., it does not require two isolation structures). If one region has an isolation structure that is effective in both directions, this single isolation structure will isolate the first region from noise generated in the second region and vice-versa. To the extent that Motorola is attempting to impose a requirement for two isolation structures, a limitation that is clearly not present in the claim, Motorola's proposed definition should be rejected.

j.   "protected from noise"

ST INC believes that the differences between the two constructions offered by the parties are insignificant. Therefore, ST INC would agree with Motorola that "protected from noise" does not need to be construed by the Court.

C.   U.S. PATENT NO. 5,359,244 ("THE HOPKINS PATENT")

The purpose of the claim-construction process is to define the meaning of certain terms or phrases in patent claims, but not to alter the claims themselves. "The construction of claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims."[61] But rather than adhering to the Federal Circuit's directive, Motorola's Responsive Brief regarding the Hopkins patent attempts to read-in approximately 11 new claim elements and restrictions, none of which is present in the issued claims or implied by any prosecution history or statements in the specification.[62] Motorola's objective is quite clear — it wants the Court to narrow drastically the scope of the claims of the Hopkins patent through the introduction of these new and unwarranted claim limitations.

1.   "a positive supply voltage"

In its opening brief, ST INC established that, according to the plain and ordinary meaning of the term as used in the Hopkins patent, "positive supply voltage" means "a voltage that has a positive potential relative to a reference potential derived from a source external to the circuit." Motorola, in turn, contends that the "positive supply voltage," must be to a source outside the circuit of the invention itself. But that assertion is inconsistent with the specification of the Hopkins patent, and thus, must be rejected.

The first problem with the proposed Motorola definition is that it does not read on the preferred embodiment described in the specification of the Hopkins patent. The Federal Circuit has explained that "[a] claim interpretation that reads out a preferred embodiment is 'rarely, if ever, correct, and would require highly persuasive evidentiary support.'"[63] Motorola's proposed definition states that the supply voltage is present "at an external source to the gate drive

---

[61] *Embrex, Inc. v. Serv. Eng'g Corp.*, 216 F.3d 1343, 1347 (Fed. Cir. 2000).

[62] The following is a list of the new elements and claim term restrictions that Motorola is requesting that the Court add into the asserted independent claims of the Hopkins patent: "a first charge pump"; "a first capacitor"; "said capacitor is not an external capacitor"; "a second charge pump"; "a second capacitor"; "said second capacitor is not an external capacitor"; "a voltage at an external source"; "current from a first charge pump"; "current from a second charge pump"; "starts charge pumping"; and, "stops charge pumping."

[63] *Amgen Inc. v. Hoechst Marion Roussel*, 314 F.3d 1313, 1349 (Fed. Cir. 2003) (citation omitted).

circuits." But the embodiments shown in Figures 1 and 2 of the Hopkins patent clearly show that the positive supply voltage is present *in the circuit* and is represented by the supply voltage 38 in Figure 1 and the corresponding horizontal line at the top of Figure 2. These supply voltages are *in* the circuit, not external to it. To require that the positive supply voltage be *external* to the circuit as Motorola proposes is neither supported by the Hopkins patent nor consistent with it.

The second problem with the proposed Motorola definition is that it is inconsistent with Motorola's own dictionary definition. The reference relied upon by Motorola states that the supply voltage is "applied *by* an external source" (emphasis added). While professing to adopt this definition, however, Motorola has altered the definition to be "a voltage *at* an external source" (emphasis added). Thus, Motorola's proposed claim definition is in conflict with, its own cited definition.

Motorola's argument that the ST INC definition is vague is likewise misplaced. The positive supply voltage used within the circuit is derived from an external source because the supply voltage does not have a source in and of itself. ST INC's proposed construction correctly accounts for the actual physical process of providing a supply voltage to the circuit. The claim's reference to the positive supply voltage is an unambiguous statement that the supervoltage is higher than the positive supply voltage. Thus, Motorola's argument that ST INC's proposed construction does not appraise one of skill in the art as to the meaning of "positive supply voltage" is incorrect. One having ordinary skill in the art would clearly and easily understand that a positive supply voltage refers to a voltage that has a positive potential relative to a reference potential derived from a source external to the circuit.

2.   *"disables the first gate drive circuit"*

As it must, Motorola concedes in its Responsive Brief that the term "disable" means to "prohibit some specific event from proceeding."[64] In the context of a circuit, this simply means to stop the circuit from operating. Motorola, however, makes the claim construction leap of reading

---

[64] Motorola's Responsive Brief, at 36.

into this simple action of disabling a circuit the requirement of "charge pumping." There is clearly nothing in the phrase "disables the first gate drive circuit" that even remotely relates to the operation of charge pumping. Motorola concludes that, since charge pumping is described in the specification, it must be incorporated into the claims. This is another example of the prohibited incorporation of the operation of a preferred embodiment into a claim.[65]

Motorola also argues that the ST INC definition is not in harmony with the objectives of the patent. Motorola posits that cessation of operation of certain circuit components would not provide sufficient current reduction to comply with one of the objectives of the patent — current reduction. This is speculation, since there are no required numerical limits for current reduction, and Motorola does not even guess at what current reduction would be achieved by its hypothetical circuit operation. Such an ambiguous and unsupported position is no legal basis for adding an entirely new element to a patent term, namely adding the operation of "charge pumping."

A further argument propounded by Motorola is a supposed disavowal during patent prosecution that required the incorporation of charge pumping into this simple phrase. The patentee distinguished Bloomer because it had neither charge pumping nor a supervoltage.[66] Bloomer has no fast charge circuit to turn off. Thus, there is no "disavowal" that would mandate the incorporation of the operation of "charge pumping" into the act of disabling a circuit.

3. *"enables the first and second gate drive circuits"*

Motorola's arguments for its definition of this term are similar to those presented for the phrase of "disables the first gate drive circuit." Again, there is no disagreement that "enable" means to "permit some specific event to proceed." The conflict arises in the proposal by Motorola to incorporate the requirement of "charge pumping" into this relatively simple claim phrase. The plain meaning of this phrase is that the two gate drive circuits are allowed to operate. It is difficult to see how the action of "charge pumping" can be construed to be a part of

---

[65] *See Liebel–Flarsheim*, 358 F.3d at 913; *Inverness*, 309 F.3d at 1379; *Laitram*, 163 F.3d at 1347.

[66] Reply Appendix 106 — Amendment A submitted March 4, 1994, at 3–4.

this phrase, as Motorola contends.

Motorola's first argument is that the described embodiment involves the enablement of a charge-pumping operation, but as discussed numerous times above, a patent claim is not limited to the specific embodiment disclosed in the specification. The direct and simple description for the operation of enabling a circuit is that submitted by ST INC: "places the first and second gate drive circuits in a state in which both are permitted to operate."

4.   "first gate drive circuit for charge pumping a node"

The "gate drive circuit" by its own words is a circuit that provides a drive to the gate of a transistor. Thus, any circuit that drives the gate of a transistor can be characterized as a "gate drive circuit." The gate terminal of a transistor can be driven in many ways that do not require the use of a charge pump. Indeed, the term "charge pump" does not appear in the claims of the patent. Rather, the claims refer only to the act of "charge pumping," as in this disputed term.

Thus, to define a "gate drive circuit" as being a "charge pump" is erroneous. Motorola does not provide any reference material, dictionary or otherwise, which defines a "gate drive circuit" as a "charge pump," because no such definition exists. Motorola's only basis for this argument is its incorrect reading of a sentence in the background section of the Hopkins patent. This sentence refers to a "charge pump" as "Another technique . . ." to derive an increased voltage for a gate drive circuit.[67] Thus, there is no factual or legal basis for replacing the term "first gate drive circuit" with the term "a first charge pump" as requested by Motorola.

In its response brief, Motorola asserts that in the preferred embodiment described in the specification of the Hopkins patent, the gate drive circuit includes a charge pump. What the specification describes is a preferred embodiment for performing *the function* of "charge pumping." Motorola's attempt to read into the claims a specific charge pump circuit — and then argue what is meant by a "charge pump" — is impermissible, as the Federal Circuit has repeatedly

---

[67] Reply Appendix 100 — Hopkins patent, col. 1, lines 26–28.

held that claims are not to be limited to the embodiments described in the specification.[68]

Motorola's proposed construction for this term further includes a narrow definition for the process of charge pumping. The specific language proposed by Motorola — "charge pump that delivers charge current by shifting the negative side of a capacitor from a lower voltage to a higher voltage" — is a way of performing the act of charge pumping, but there is absolutely no basis for reading this specific description into the claims of the Hopkins patent. Motorola even acknowledges that it could find no such definition in any dictionary for charge pump.[69] This Court should not import into the claims the new element of a "charge pump."

ST INC's proposed definition of the charge pumping operation — "alternately taking on charge and delivering charge to the gate of a transistor in a repetitive process" — is a general description of charge pumping, without the unnecessary limitations Motorola seeks to impose.

Motorola also argues that ST INC's proposed definition possibly, under certain numerical values of time, capacitance and threshold voltage, might give rise to an instance in which the gate could be driven to the supervoltage in a single pump cycle and therefore not be "repetitive." Not surprisingly, Motorola does not present any support for a circumstance of this type ever occurring. It is speculation to assume that under certain unknown conditions there may be an instance in which the charge pumping occurs in one cycle. This is far short of any justification that the ST INC definition is not supported by the disclosed circuit in the Hopkins patent.

Motorola's argument that the "capacitor," which it has newly introduced into the claim, must also be only an external capacitor is also based upon faulty analysis. Motorola relies again upon the discussion of the background technology for the statement that a "bootstrap capacitor" requires the use of a large external capacitor. Motorola contends that this is an argument for distinguishing the Hopkins invention on the basis of external versus internal capacitors. This is not correct. The bootstrap capacitor referred to in the background section is not a capacitor

---

[68] *See, e.g., Liebel-Flarsheim*, 358 F.3d at 913; *Inverness*, 309 F.3d at 1379; *Laitram*, 163 F.3d at 1347.

[69] Motorola, Inc.'s Responsive Brief, at 23.

associated with performing charge pumping,[70] as described in the circuit of the Hopkins patent. Thus, it is erroneous to equate the bootstrap capacitor described in the background section of the Hopkins patent to the charge pump capacitor used in the circuit of the patent.

The patentee has not disavowed any circuit configuration for a capacitor, whether internal or external. Again, none of the asserted claims of the Hopkins patent includes any reference to a capacitor at all. The addition of a "first capacitor" to the claims is an unsupported creation of Motorola inconsistent with proper claim construction.

Motorola has proposed adding to each claim the new element of "a charge pump," then contends that this new element itself requires another new element "a capacitor" which in turn requires a further new claim element of "not external" for the capacitor. Such logic is unsupported, unnecessary, and inconsistent with the principles of claim construction.

In view of the above, the simple and direct claim construction for a "first gate drive circuit for charge pumping a node" is "a first circuit that drives a power transistor by alternately taking on charge and delivering charge to the gate of the transistor in a repetitive process."

5.   *"second gate drive circuit for charge pumping the node"*

Motorola contends that the citation in the "Background of the Invention" section of the Hopkins patent to a circuit having a single charge pump requires that the issued claims 1 and 14 be amended by inserting into these claims the new elements of "a first charge pump" and "a second charge pump." And Motorola further contends that these two additional charge pump elements must be added to these claims of the Hopkins patent so that they will be valid over the cited patent to Wilcox (U.S. Patent No. 5,023,474). Neither of these assertions is correct.

The Hopkins patent discusses prior devices that utilize a single "charge pump" for the driving of an MOS power transistor.[71] The Wilcox patent — which was cited during prosecution of the Hopkins patent application — is a driver circuit for an MOS transistor that contains a

---

[70] Reply Appendix 100 — Hopkins patent, col. 1, lines 16–25.

[71] Reply Appendix 100 — Hopkins patent, col. 1, lines 26–40.

single charge pump.[72] The examiner then, having full knowledge of this prior art, allowed the claims of the Hopkins patent as written, without any requirement that the claims include the proposed first and second charge pumps, as argued by Motorola.

It is well-established that the claims of issued patents are entitled to a presumption of validity.[73] Motorola has not rebutted that presumption. Rather, its suggestion that Wilcox might be an invalidating reference has already been considered and rejected by the patent examiner. Motorola should not be permitted to read into the claims any limitation merely by hypothesizing that the claims might be invalid if that limitation is not added.

Just as it has done for the "first gate drive circuit for charge pumping" the node, Motorola has proposed for this phrase numerous claim elements and limitations that do not fall within the language of the claims. As discussed above in connection with the "first gate drive circuit," the addition of these new claim elements and limitations is incorrect and has no technical or legal support. Thus, for the same reasons stated above, ST INC submits that the proper construction for this term is "a second circuit that drives a power transistor by alternately taking on charge and delivering charge to the gate of the transistor in a repetitive process."

6.   "*utilizes/utilizing a first charge current*"

In this claim term construction, Motorola is again reading in a new claim element, rather than simply defining the claim term. In this case, the added element is "a first charge pump." There is no recitation of a "charge pump" in any of the claims of the Hopkins patent, and there is no justification for adding this element to the claims. Motorola has interpreted claim 1 to say that because it recites the production of a "first charge current" and because there is a recitation of the act of "charge pumping," there must of necessity be the presence of a "first charge pump." The recitation of "first charge pump" clearly leads to the further recitation of a "second charge pump." This analysis is incorrect.

---

[72] Reply Appendix 110 — Wilcox, U.S. Patent No. 5,023,474, FIG. 1, element 12.

[73] 35 U.S.C. § 282; *Intelll Prop. Dev. v. UA–Columbia Cablevision*, 336 F.3d 1308, 1319 (Fed. Cir. 2003).

A plain reading of the claim does not require the existence of "a charge pump" — a term that Motorola admits lacks a dictionary definition — for producing the first charge current. Following its faulty logic, Motorola likewise argues that because the claims recite the generation of a "second charge current," there must somewhere exist in the claim a "second charge pump." This reasoning is likewise incorrect. Again, the claim states that there is the action of "charge pumping" but there is clearly no requirement — anywhere in the intrinsic evidence or anywhere else — that the charge pumping be performed by two separate "charge pumps."

Motorola has apparently tried to inject the term "charge pump" into every disputed claim limitation it could, hoping that it might erroneously be adopted in one of those places. It has no place in the construction of this term — or any other term — in the patent. "Utilizing a first gate drive current" simple means "using a first current for charging the gate of a MOS power transistor."

7.   *"utilizes/utilizing a second charge current"*

The arguments and issues relating to this phrase are the same as for the phrase "utilizes/utilizing a first charge current" above. Just like the above, Motorola's attempt to read into the claims an additional element — a "second charge pump" — is improper and unsupportable. The act of charge pumping is addressed elsewhere in the claims, and this term should be construed as "using a second current for charging the gate of a MOS power transistor."

CONCLUSION

STMicroelectronics, Inc. respectfully requests that the Court construe the disputed terms of ST INC's patents as set forth above and in ST INC's Opening Brief on Claim Construction.

Respectfully submitted,

Bruce S. Sostek
  Texas Bar No. 18855700
  Attorney–in–Charge
Jane Politz Brandt
  Texas Bar No. 02882090
Max Ciccarelli
  Texas Bar No. 00787242
THOMPSON & KNIGHT LLP
1700 Pacific Avenue, Suite 3300
Dallas, Texas 75201–4693
214.969.1700
214.969.1751 (facsimile)

Michael E. Jones
  Texas Bar No. 10929400
POTTER MINTON
A Professional Corporation
110 North College
500 Plaza Tower
Tyler, Texas 75702
903.597.8311
903.593.0846 (facsimile)

Clyde Siebman
  Texas Bar No. 18341600
SIEBMAN, REYNOLDS & BURG, LLP
421 North Crockett
Sherman, Texas 75090
903.870.0070
903.870.0066 (facsimile)

ATTORNEYS FOR PLAINTIFF
STMICROELECTRONICS, INC.

CERTIFICATE OF SERVICE

On the 16th day of April, 2004, a copy of the foregoing was served upon the following counsel of record as indicated:

Overnight Delivery (Saturday Delivery)
Kenneth R. Adamo
Hilda C. Galvan
JONES DAY
2727 North Harwood Street
Dallas, Texas 75201

Via First-Class Mail
James P. Bradley
Sidley Austin Brown & Wood, LLP
717 North Harwood
Dallas, Texas 75201

_____
Richard L. Wynne, Jr.

DALLAS 1726754.3